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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/632,280

08/01/2003

Alexis C. Weber

DP-310019

5073

7590

08/28/2006

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EXAMINER

LE, DAVID D

ART UNIT

PAPER NUMBER

3681

DATE MAILED: 08/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/632,280	WEBER ET AL.	
	Examiner	Art Unit	
	David D. Le	3681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9,12-18 and 21-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,9 and 18 is/are rejected.
- 7) ☒ Claim(s) 3-8,12-17 and 21-26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is the second Office action on the merits of Application No. 10/632,280, filed on 01 August 2003. Claims 1, 3-9, 12-18 and 21-26 are pending.

Documents

2. The following documents have been received and filed as part of the patent application:
 - Information Disclosure Statement, received on 02/05/04

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by U. S.**

Patent Application Publication No. US 2001/0032633 A1 to Bircann et al.

Claims 1 and 18:

Bircann (i.e., Figs. 2-3; paragraphs [0014] to [0021]) discloses a solenoid for a linear actuator comprising:

- A plunger (i.e., Fig. 2, element 20');
- A primary plate (i.e., Fig. 2, element 16);

- A plunger rod (i.e., Fig. 2, element 22') extending from the plunger;
- A bobbin (i.e., Fig. 2, being the member that is located adjacent to and radially inward of element 18) defining an open end (i.e., Fig. 2);
- Wherein the plunger is slidably disposed within the bobbin (i.e., Fig. 2 or 3);
- Wherein a portion of a central hub of the primary plate (16) is installed within the open end of the bobbin (i.e., Fig. 2 or 3);
- Wherein the plunger moves toward the primary plate when the actuator is energized and wherein a magnetic force of attraction between the plunger and the primary plate diminishes as the plunger approaches the primary plate (i.e., Fig. 2); and
- Wherein the plunger is movable between an unlocked position, wherein the plunger rod does not extend through the primary plate (i.e., Fig. 3) and a locked position, wherein at least a first end of the plunger rod extends through a bore formed by the primary plate (i.e., Fig. 2).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 6,142,282 to Rudisil et al. in view of Bircann et al.**

Claim 9:

Rudisil (i.e., Figs. 1-11; column 1, line 16 – column 8, line 32) discloses a brake-transmission shift interlock device comprising:

- A vehicle power supply (i.e., being the inherent vehicle battery, column 3, lines 30-35);
- An inherent ignition switch electrically coupled to the vehicle power supply;
- A brake pedal switch (i.e., column 7, lines 57-60);
- A brake transmission shift interlock actuator (i.e., Fig. 1, element 10) inherently coupled to the ignition switch and the brake pedal switch (i.e., column 7, lines 57-60);
- Wherein the brake transmission shift interlock actuator includes:
 - A primary plate (i.e., Fig. 1, element 28);
 - A plunger (i.e., Fig. 7, element 76);
 - A bobbin (i.e., Fig. 7, element 46) defining an open end (i.e., Fig. 7);
 - Wherein the plunger is slidably disposed within the bobbin (i.e., Fig. 7);
 - and
 - A plunger rod (i.e., Fig. 7, element 78) extending from the plunger;
- A transmission shift lever (i.e., column 8, lines 16-19) mechanically coupled to the brake transmission shift interlock actuator (i.e., column 8, lines 26-32);

- Wherein the plunger is moveable between an unlocked position, wherein the plunger rod does not extend through the primary plate (i.e., Fig. 9) and a lock position, wherein at least a first end of the plunger rod extends through a bore (i.e., Fig. 9, element 41) formed by the primary plate to prevent the transmission shift lever from moving; and
- An automatic transmission mechanically coupled to the transmission shift lever (i.e., column 3, lines 26-35).

Rudisil lacks:

- A portion of a central hub of the primary plate installed within the open end of the bobbin; and
- Wherein the plunger moves toward the primary plate when the brake transmission shift interlock actuator is energized.

Bircann (i.e., Figs. 2-3; paragraphs [0014] to [0021]), on the other hand, discloses a solenoid for a linear actuator comprising:

- A plunger (i.e., Fig. 2, element 20');;
- A primary plate (i.e., Fig. 2, element 16);
- A plunger rod (i.e., Fig. 2, element 22') extending from the plunger;
- A bobbin (i.e., Fig. 2, being the member that is located adjacent to and radially inward of element 18) defining an open end (i.e., Fig. 2);

- Wherein the plunger is slidably disposed within the bobbin (i.e., Fig. 2 or 3);
- Wherein a portion of a central hub of the primary plate (16) is installed within the open end of the bobbin (i.e., Fig. 2 or 3);
- Wherein the plunger moves toward the primary plate when the actuator is energized and wherein a magnetic force of attraction between the plunger and the primary plate diminishes as the plunger approaches the primary plate (i.e., Fig. 2); and
- Wherein the plunger is movable between an unlocked position, wherein the plunger rod does not extend through the primary plate (i.e., Fig. 3) and a locked position, wherein at least a first end of the plunger rod extends through a bore formed by the primary plate (i.e., Fig. 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rudisil such that the brake transmission shift interlock actuator is the solenoid for a linear actuator, in view of Bircann, in order to effectively control the movement of the plunger rod between the unlocked position and the locked position as well as to sufficiently compact the all over size of the brake transmission shift interlock actuator.

Allowable Subject Matter

7. Claims 3-8, 12-17 and 21-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments, see Remarks, filed 08 June 2006, with respect to the rejection(s) of claim(s) 1, 3-9, 12-18 and 21-26 under 38 U.S.C. 112, second paragraph, have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made as set forth above.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Martus et al. (U. S. Patent No. 4,987,968) teaches a transmission shift interlock device, as shown in Figs. 3 and 4.
- Ueda et al. (U. S. Patent No. 4,462,013) teaches an electromagnetic device, as shown in Fig. 7.
- J. A. Harper (U. S Patent No. 3,488,611) teaches a multiple switch control, as shown in Fig. 2.
- B. S. Henderson (U. S. Patent No. 3,461,412) teaches a solenoid, as shown in Fig. 1.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 571-272-7092. The examiner can normally be reached on Mon-Fri (0700-1530).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3681

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


ddl


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PRIMARY EXAMINER
ART UNIT 3681